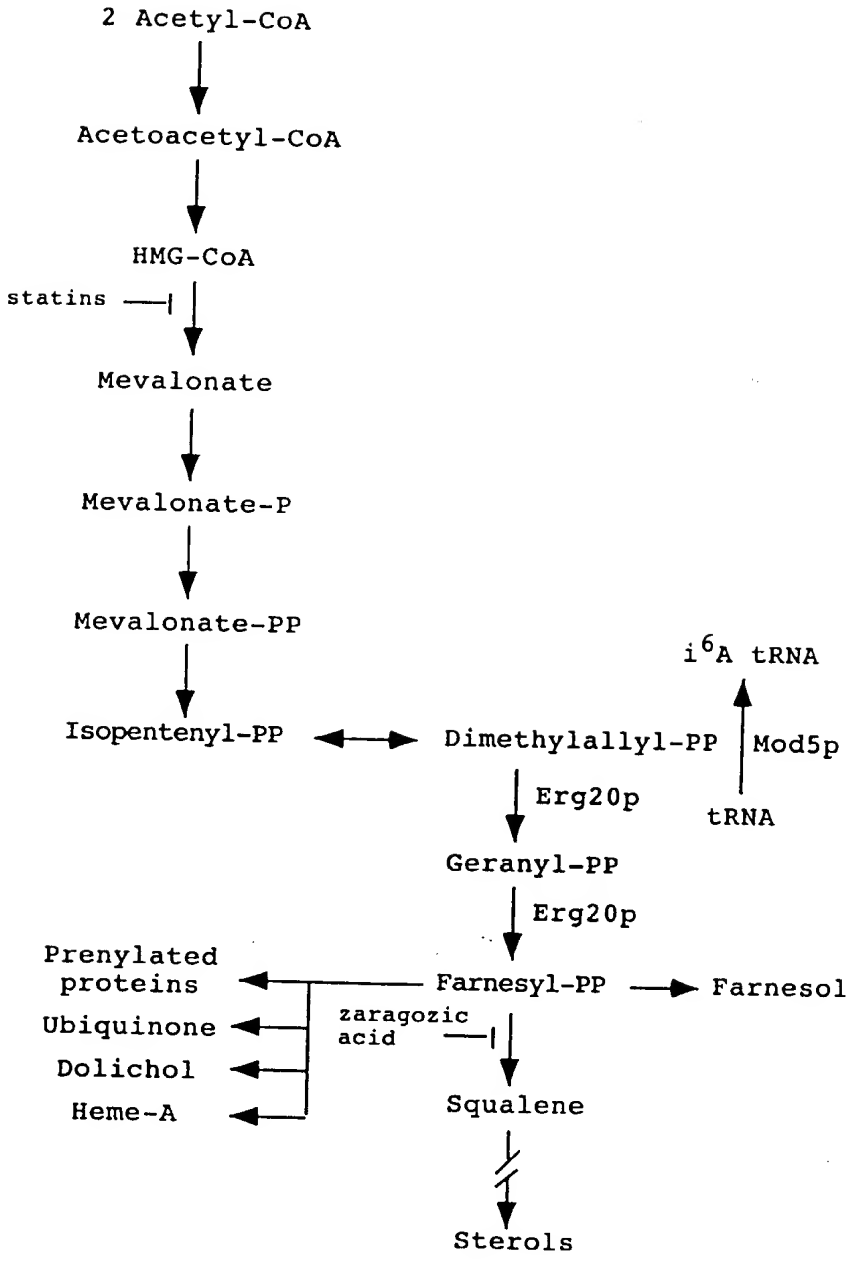


Fig. 1. The mevalonate pathway (11).

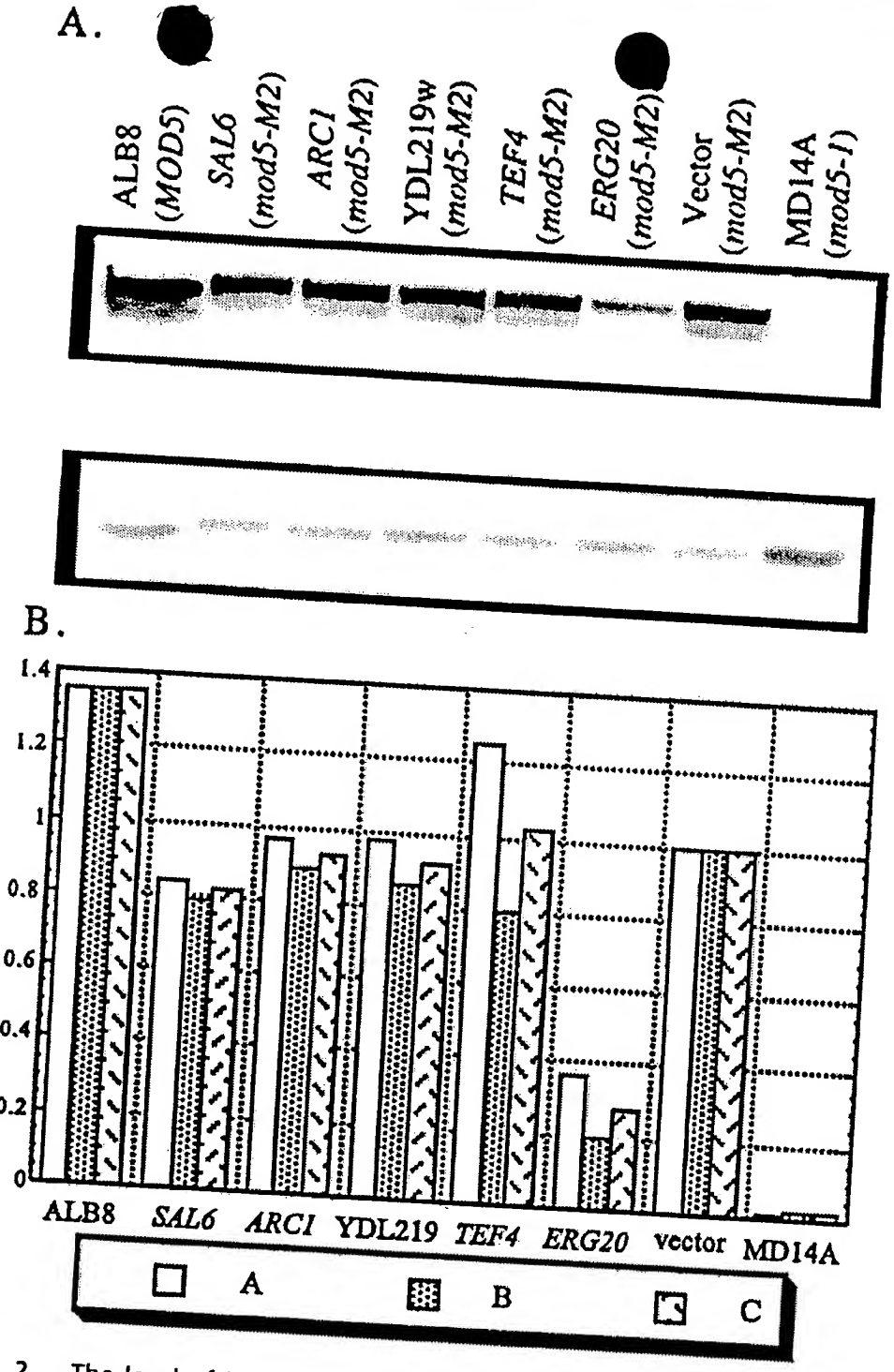


Fig. 2. The level of isopentenylated tRNA found in ALB1 overexpressing *ERG20* is reduced substantially. (*A*) Low-molecular-weight RNA was prepared from ALB1 (*mod5-M2*) with each of the candidate genes or vector alone, ALB8 (*MOD5*), or MD14A (*mod5–1*). The RNAs were resolved on polyacrylamide gels, transferred to membranes, and probed with anti-isopentenyl adenosine antibody (*Upper*) or radiolabeled oligonucleotide complementary to mature $tRNA^{Tyr}$ (*Lower*). (*B*) The levels of isopentenyl adenosine tRNA found in ALB1 with each of the candidate genes or vector only or in the strain ALB8 or MD14A were assessed by densitometric analysis of two immunoblots and expressed as a fraction of the level found in the "vector" control. A, membrane 1 values; B, membrane 2 values; C, average values.

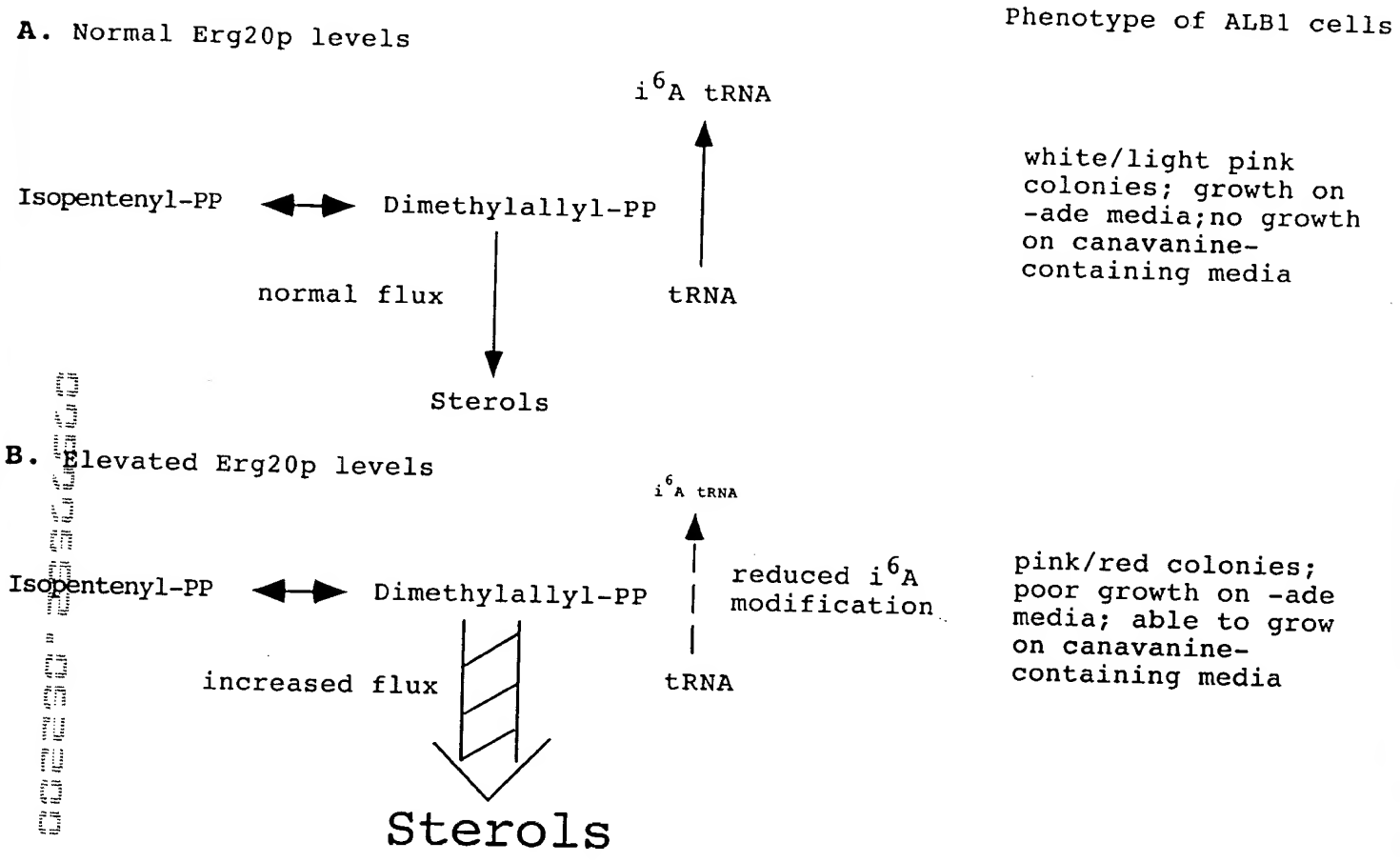


Fig. 3. Model of competition between i^{6}A modification of tRNA and sterol biosynthesis.

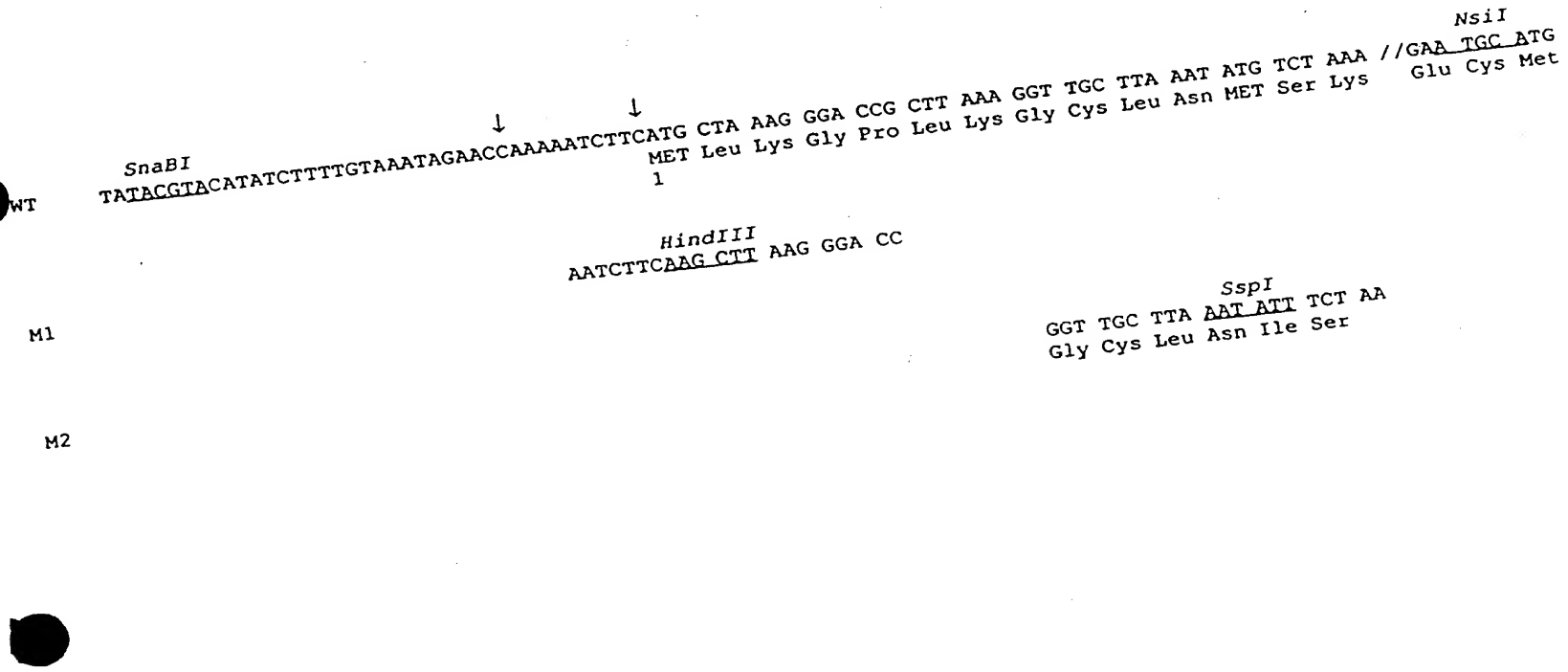

SnaBI
WT
TATACGTACATATCTTTTGTAAATAGAACCAAAAATCTTCATG CTA AAG GGA CCG CTT AAA GGT TGC TTA AAT ATG TCT AAA //GAA TGC ATG
MET Leu Lys Gly Pro Leu Lys Gly Cys Leu Asn MET Ser Lys Glu Cys Met
1
NsiI
HindIII
AATCTTCAAG CTT AAG GGA CC
M1
SspI
GGT TGC TTA AAT ATT TCT AA
Gly Cys Leu Asn Ile Ser
M2

FIGURE 4

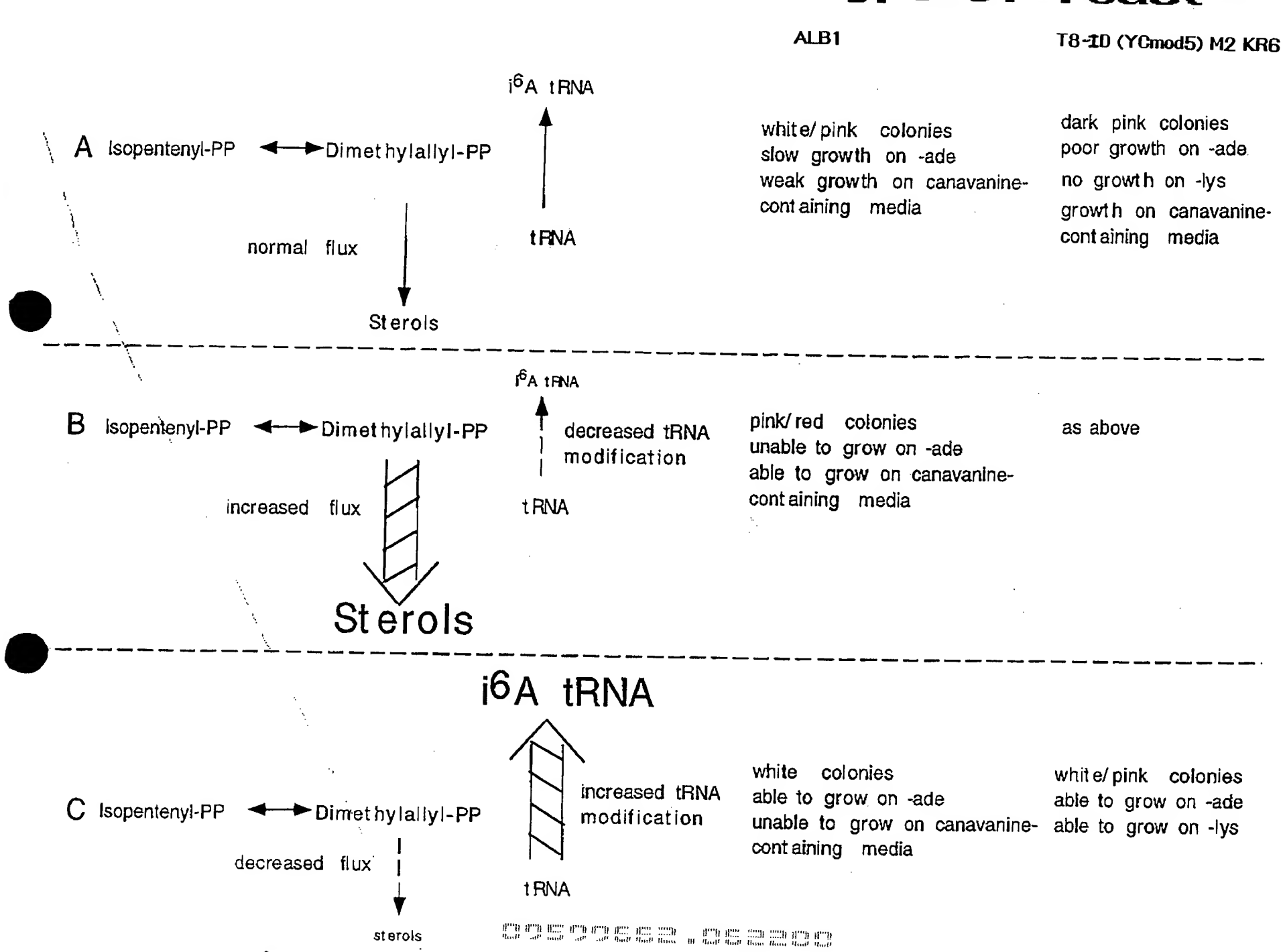
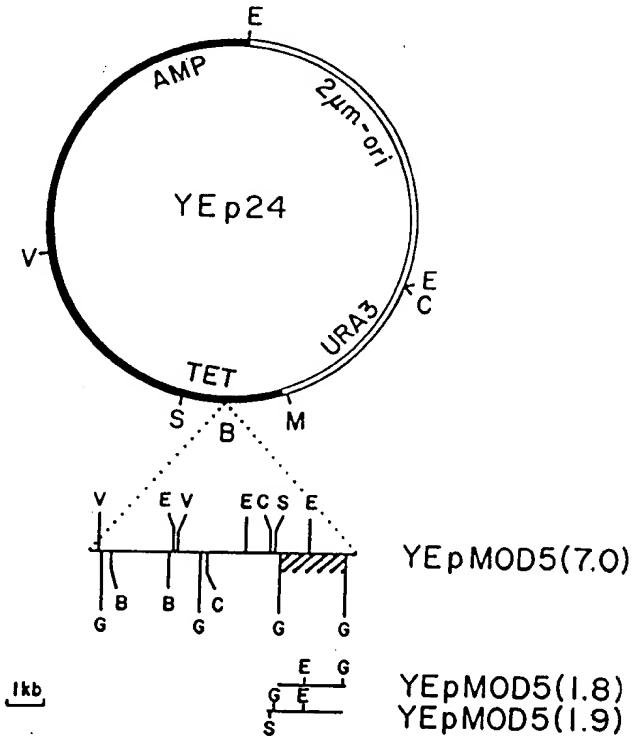

Phenotype Of Yeast
ALB1
T8-1D (YCmod5) M2 KR6
A Isopentenyl-PP
Dimethylallyl-PP
i6A tRNA
tRNA
normal flux
Sterols
white/pink colonies
slow growth on -ade
weak growth on canavanine-containing media
dark pink colonies
poor growth on -ade
no growth on -lys
growth on canavanine-containing media
B Isopentenyl-PP
Dimethylallyl-PP
i6A tRNA
decreased tRNA modification
tRNA
increased flux
Sterols
pink/red colonies
unable to grow on -ade
able to grow on canavanine-containing media
as above
i6A tRNA
C Isopentenyl-PP
Dimethylallyl-PP
increased tRNA modification
tRNA
decreased flux
sterols
white colonies
able to grow on -ade
unable to grow on canavanine-containing media
white/pink colonies
able to grow on -ade
able to grow on -lys

FIGURE 5



▬, *E. coli* sequences of vector YEp24; ▭, yeast sequences of vector YEp24; —, insert of yeast genomic DNA; ▨; 1.8-kb *Bgl*II fragment used as a probe and fragment in YEpMOD5(1.8) and YCpMOD5 (1.8). B, *Bam*HI; C, *Cla*I; E, *Eco*RI; G, *Bgl*II; M, *Sma*I; S, *Sal*I; V, *Pvu*II.

FIGURE 6